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09/842,182	04/26/2001	Takeshi Kunimasa	046601-5091	7273

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EXAMINER

COUSO, YON JUNG

ART UNIT PAPER NUMBER

2625

DATE MAILED: 01/13/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Art Unit: 2625

1. This office action is in response to the amendment filed July 28, 2004.
2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 7, 8, 14-20, and 22 are rejected under 35 U.S.C. 102(e) as being anticipated by Hiraishi et al (US Patent No. 6,538,759).

As for claims 1 and 8, Hiraishi teaches an image processing device, comprising: an output image data generation unit that performs a generation process to generate output image data from input image data (column 1, lines 31-34); a converting unit that performs a converting process to convert the input image data into recognition image data (15 in figure 1 and column 5, lines 53-56); and a recognition unit that performs a recognition process to recognize a specific image from the converted recognition image data, wherein the output image data generation unit is adapted to wait until the recognition unit completes the recognition process for performing an image process subsequent to the generation process (11, 16, and 18 in figure 1 and column 5, line 52-column 7, line 30).

As for claims 7, 14 and 18, Hiraishi teaches that when a result of recognition by the recognition unit indicates the existence of the specific image, the output image data generation unit stops generation or output of the output image data is provided by

Hiraishi in at least the paragraph bridging cols. 5-6, the third full paragraph in c. 6, the paragraph bridging cols. 9-10, and the first full paragraph in c. 10, for example.

As for claim 15, Hiraishi teaches a storage medium readable by a computer, the storage medium storing a program of instructions executable by the computer to perform a function for recognizing a specific image from input image data, the function comprising: generating output image data from the input image data, and waiting to perform an image process subsequent to the generating until a process of recognizing has completed (11, 16, and 18 in figure 1 and column 5, line 52-column 7, line 30); converting the input image data into recognition image data (15 in figure 1); and recognizing the specific image by using the converted recognition image data (11, 16, and 18 in figure 1 and column 5, line 52-column 7, line 30).

As for claims 16, 17, and 19, Hiraishi teaches that when the recognition unit recognizes the specific image, the output image data generation unit stops the generation or output of the output image data, even if the generation or output by the output image data generation unit has not completed (column 7, lines 15-23).

As for claim 20, see claims 1, 16, 17, and 19 above.

As for claim 22, Hiraishi teaches an image processing device comprising: an output image data generation unit that performs a generation process to generate output image data from input image data (column 1, lines 31-34); a converting unit that performs a converting process to convert the input image data into recognition image data (15 in figure 1 and column 5, lines 53-56); and a recognition unit that performs a recognition process to recognize a specific image from the converted recognition image

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data (11, 16, and 18 in figure 1 and column 5, line 52-column 7, line 30), wherein when the recognition process is performed in parallel with the generation process, and the output image data generation unit is adapted to wait until the recognition unit completes the recognition process for performing an image process subsequent to the generation process (see figure 1).

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

- (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3-5, 10-12, 21, and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hiraishi et al.

The arguments advanced in paragraph 2 above as to the applicability of the reference are incorporated herein.

Hiraishi does not teach details on a color space, resolution, or the number of bits used to represent a pixel of an image formed by the output image data and that of an image formed by the recognition image data are different from each other. However, Hiraishi clearly teaches comparison and determination section where those differences are determined by comparison (18 in figure 1). It would have been obvious to one of ordinary skill in the art to represent image in different color space, resolution, and/or the number of bits used to represent a pixel since they are fundamental attributes in representing images.

As for claims 21 and 23, even though Hiraishi does not teach details on the converting process is performed in parallel with the generation process, and the output image data generation unit is adapted to wait until the recognition unit completes the recognition process for performing an image process subsequent to the generation process or when the converting process and recognition process are performed in parallel with the generation process, and the output image data generation unit is adapted to wait until the recognition unit completes the recognition process for performing an image process subsequent to the generation process. However, Hiraishi clearly teaches when the recognition process is performed in parallel with the generation process, and the output image data generation unit is adapted to wait until the recognition unit completes the recognition process for performing an image process subsequent to the generation process (see figure 1). It would have been obvious to one of ordinary skill in the art to configure the converting process performs in parallel with the generation process and/or converting process and recognition process perform in parallel with the generation process. It is old and well-known in the art that the parallel processing would increase the process speed. Given the reference, when the each element is taught, it would have been obvious to one of ordinary skill in the art to reconfigure the elements and connect them parallel. The motivation to do so would be speed, namely efficiency.

4. Claims 2 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hiraishi et al. 6,538,759, as applied to claims above, and further in view of Bloomquist et al., 6,594,034.

The arguments advanced in paragraph 2 above as to the applicability of the reference are incorporated herein.

For claims 2 and 9, an image processing device according to claim 1, wherein the output image data generation unit generates output image data in a page description language format from the input image data is not explicitly provided by Hiraishi, although Hiraishi does provide for generating output data. One very common output data format is the page description language (PDL), which itself is a general term encompassing any one of a number of different PDLs. Bloomquist provides for PDL in at least the paragraph bridging cols. 1-2 and the paragraph bridging cols. 6-7 for example. Hiraishi can use the PDL of Bloomquist for output to the printer interface block 12 in Fig. 1 of Hiraishi for example. It would've been obvious to one having ordinary skill in the art at the time the invention was made to use the PDL format for outputting to the printer interface of Hiraishi, since the PDL is a conventional and well known format that provides for at least the advantages of faster file transfer, since the PDL file size is significantly smaller than raster and are also machine independent, so that a print engine or other device which understands PDL can produce an image therefrom. The converting unit converts the input image data into recognition image data in a raster image format is considered provided by Hiraishi, since the data is basically in printable form (e.g. binary/bitmap; i.e. raster format). See Hiraishi in the paragraph bridging cols. 4-5, the first full paragraph in c. 5, and the second full paragraph in c. 8, and Figs. 4A-6B showing data that can be printed, and Bloomquist explicitly recites raster where cited above.

5. Claims 6 and 13 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

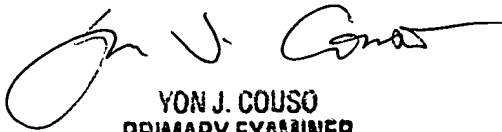
7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yon Couso whose telephone number is (703) 305-4779. The examiner can normally be reached on Monday through Friday from 8:30 to 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bhavesh Mehta, can be reached on (703) 308-5246. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

YJC



YON J. COUSO
PRIMARY EXAMINER

January 10, 2005